

REMARKS

Claims 1-24 were pending in the application. Claims 1, 10, and 24 have been amended and no new claims have been added or deleted. Therefore, entry and reconsideration based on the instant amendment and reply is respectfully requested because it is believed to place the application in condition for allowance.

Applicants thank the examiner for indicating that claims 8-9 are allowed and that claim 10 contains allowable subject matter. Applicants have amended claim 10 to address the objection on page 4 of the Office Action. Accordingly, applicant submits that claims 8-10 are now in condition for allowance in accordance with the indications in the Office Action.

In the Office Action, claims 1-7 and 24 are rejected under 35 U.S.C. §102(a) as being anticipated by Lockhart et al. Claims 11-23 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lockhart et al. Applicants respectfully traverse these rejections for at least the following reasons.

Claims 1 and 24 recite that first and second value of two different polynucleotide characteristics are used to calculate a position in a plane in which ordered values of the first and second characteristics are arranged upon first and second ordinates to define that plane in a multi-dimensional display space. A peak (representing a measure of quantity) is calculated for each polynucleotide and displayed in another dimension of the multi-dimensional display space at the defined position for that polynucleotide in the plane. At least several of these recited features are not taught or suggested by Lockhart. These recited features are supported at, for example, page 18, lines 33-35, of the specification that discusses ordered values along an ordinate associated with a polynucleotide characteristic.

First, as acknowledged in the Office Action, Lockhart does not disclose that a quantity measure of a polynucleotide is displayed as a peak in another dimension from a plane defined by ordered ordinates that are used to calculate the position of the polynucleotide based on two different characteristics of the polynucleotide that are used to order the ordinates of the plane.

Second, Lockhart does not disclose displaying the quantity characteristic peak at a position in a display space plane defined by ordered ordinates corresponding to two different characteristics of the polynucleotide. The Office Actions cite to Figs. 2 and 5 of Lockhart for disclosing these recited features. However, these figures disclose fluorescence image arrays resulting from hybridization based on a large number of probes. However, as discussed in page 1679 under the heading "Quantitative Analysis of hybridizations and intensities," the scanned image array does not contain any information regarding ordering of the display peaks (or even intensities) on a two dimensional plane having ordered ordinates corresponding to two different polynucleotide characteristics. Rather, Lockhart states that "This information is merged with another text file that contains information relating physical position on the array to probe sequences and the identity of the RNA...." Therefore, the scanned image array is necessarily not arranged as recited in the pending claims, i.e., peaks representing a polynucleotide quantity arranged along a plane defined by ordered ordinates corresponding to different polynucleotide characteristics that define the position of the polynucleotide on the plane. Accordingly, these recited features are not taught or suggested by Lockhart. Therefore, all the pending claims are now believed to be patentable over the applied prior art.

In view of the foregoing, applicants respectfully request entry of the instant Amendment and Reply because it places the application in condition for allowance. An indication of the same is respectfully requested. The examiner is invited to contact the

undersigned attorney at the local telephone number if an examiner amendment would facilitate the allowance of one or more of the pending claims.

A petition and fee for a one-month extension of time is enclosed.

Respectfully submitted,

January 2, 2000 (Tuesday after holiday)
Date

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Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge deposit account No. 19-0741 for any such fees; and applicants hereby petition for any needed extension of time.